Lakes, Ponds and Reservoirs

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Aquatic Plants – Monitoring, Control and Enhancement

In recent years Iowans have come together to improve water quality in our lakes by addressing soil conservation and other issues in the watershed. These efforts pay off, and water quality and clarity improve dramatically. So how do underwater plants respond to clearer water? They grow…sometimes too well! Because grass carp tend to eliminate all rooted aquatic plants, they are no longer stocked into Iowa's public lakes. With clear water and abundant plant nutrients, some kind of plant management will be necessary, and we want to make best use of limited time, labor and financial resources.

As managers of public fishing waters we also want to provide the best fishing possible using a combination of good water quality, balanced fish populations and adequate angler access. Aquatic plants play a part in each of these three aspects. In lakes plants both grow in and sustain clearer water and provide habitat for fish of all sizes. Overabundant plants can make access difficult. Control of overabundant plants is never straight-forward, quick or cheap.

In order to give biologists the most current information available, we have completed the first draft of a Best Management Practices manual for aquatic plants. This will be used by DNR fishery mangers statewide in sampling, controlling and enhancing lake plant populations.

As an example, the effort to both control and enhance aquatic plants at Lake of Three Fires near Bedford by removing the lotus and introducing desirable plants has not gone as planned. Lotus is a type of water lily that can spread to waters up to 15 feet deep, stands above the water's surface, and is a barrier to anglers and boaters. From 2007 through 2009 we had removed much of the lotus growth with herbicide and wanted to introduce other plant types that would not be as much of a barrier to anglers. With a team of 19 people from around the state we introduced over 2,000 plants to 7,000 feet of shoreline in one day in July 2010. Though floating-leaved plants were doing well in 2011, and we were hopeful that this concentrated effort would result in quick establishment of desirable plants that would out-compete the lotus, this has not been the case. Without continuing herbicide treatments, the lotus have spread faster than those plants we introduced and again dominate the shoreline and shallow-water habitat.

At newly renovated Prairie Rose Lake, where abundant common carp have not allowed aquatic plants to grow for many years, the lake is currently drained. Over the past 3 years it has had many erosion control practices put into the watershed, the overflow structure has been modified to exclude common carp, many in-lake fish attracting structures have been added and all fish have been removed. Once it fills, we will introduce plants to learn if the above concentrated planting effort will work under these conditions.